

Amendment  
Serial No. 10/644,067  
Attorney Docket No. 031034

**AMENDMENTS TO THE DRAWINGS**

The attached new sheet of drawings includes Figs. 17 and 18. Applicants assert that no new matter is added, because the figures were inadvertently omitted. The omitted figures are supported by one of the priority applications.

Amendment  
Serial No. 10/644,067  
Attorney Docket No. 031034

**REMARKS**

Claims 1-13 and 15-17 are pending in the present application. Claims 8 and 15-17 were rejected. Claims 8, 16 and 17 are herein amended.

**Applicant's Response to Claim Rejections under 35 U.S.C. §112**

**Claim 17 was rejected under 35 U.S.C. §112, second paragraph, as being indefinite.**

The Office Action rejected claim 17 as indefinite since a rectangle is defined as having four angles which are at right angles on all sides. In response, Applicants request entry of an amendment which more accurately recites the subject matter of the application.

**Applicant's Response to Claim Rejections under 35 U.S.C. §103**

**Claims 8 and 15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Suzuki (U.S. Patent No. 6,675,942) ("Suzuki '942") in view of Stefanutti et al (U.S. Patent No. 5,776,288).**

The Office Action acknowledges that **Suzuki '942**. does not teach sides that are formed by press forming, or that segments are adhered to the core, or that the core is made of metal. **Stefanutti et al.** is applied for allegedly rendering these features obvious. The Office Action also comments on page 7 that "the method limitations are not believed to differentiate the claimed article from that of the prior art given that all other structural limitations have been met." In response, Applicants respectfully traverse the rejection.

More specifically, Applicants respectfully argue that the prior art does not teach all structural limitations required by the claims. Furthermore, the so-called method limitations in the claims do set forth structural distinctions between the present invention and the prior art.

Claim 8 requires a structural feature in that an area around a cut portion corresponding to the segment shape of the friction material substrate is pressed and heat-compressed at two sides as two straight lines of the cut portion when the friction material substrate is cut into the segment shape before being joined on the core metal. Claim 15 requires two opposite parts of said friction material substrate are pressed at two sides of two parallel lines defining a separation between a pressed and an unpressed area. The result of this is that the area around the cut portion of each of the segment pieces defines a heat-compressed portion wherein components thereof are joined with each other by heating and compressing.

Furthermore, Applicants request entry of an amendment to claim 8 to further clarify what is considered a side to help to further distinguish the invention over the prior art. Namely, claim 8 has been amended to recite that the friction material substrate is pressed and heat-compressed “at two opposite parts as two straight lines of the cut portion” of the friction material substrate.

The Office Action comments that the lines of **Suzuki ‘942** formed at 39 and 40 are considered as corresponding to the claimed structure. See Figure 4. In response, Applicants argue that **Suzuki ‘942** does not disclose a cut portion. As such, the lines 39 and 40 of **Suzuki ‘942** could not be interpreted to correspond to the claimed two straight lines of the cut portion. In addition, Applicants emphasize that the area which is pressed and heat-compressed in claims 8

Amendment  
Serial No. 10/644,067  
Attorney Docket No. 031034

and 15 differs structurally from **Suzuki '942**. For at least the foregoing reasons, Applicants respectfully submit that claims 8 and 15 as amended are sufficient to overcome this rejection.

**Claim 16 was rejected under 35 USC §103(a) as being unpatentable over Suzuki '942 in view of Suzuki et al. (U.S. Patent No. 6,170,629) ("Suzuki '629").**

In this rejection, the Office Action acknowledges that **Suzuki '942** does not teach sides which are formed by press forming. **Suzuki '629** is applied for allegedly teaching all four sides of a friction material substrate which has been pressed. The Office Action considers the friction material segments of **Suzuki '629** as having four sides which have been pressed since the entire segment is stamped from a friction material tape or sheet to a core plate.

Although the Office Action is treating claim 16 somewhat broadly, Applicants request entry of an amendment to claim 16 to clarify what is considered to be a side. Namely, claim 16 has been amended to recite that "all four peripheral edges" friction material substrate are pressed. Applicants argue that such an amendment is sufficient to overcome the pending rejection.

**Claim 17 was rejected under 35 U.S.C. §103(a) as being unpatentable over Suzuki '942 in view of Kitaori et al. (U.S. Patent No. 6,712,190) and further in view of Stefanutti et al.**

In this rejection, **Kitaori et al.** is applied for its disclosure of an oil groove having a width at an outer peripheral opening of a gap being larger than a width at an inner peripheral opening of the gap.

Amendment  
Serial No. 10/644,067  
Attorney Docket No. 031034

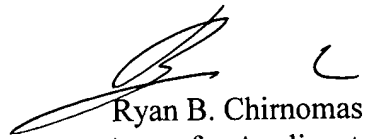
In response, Applicants request entry of the above-referenced amendment to claim 17 to clarify the shape of the segment pieces. As amended, claim 17 defines segment pieces having a pair of curved opposite sides extending in a circumferential direction of the core metal and a pair of parallel linear opposite sides extending in a radial direction of the core metal. Thus, the shape of the segment pieces in the present invention distinguishes over **Kitaori**, which discloses segment pieces 4a having a trapezoidal shape. The segment shape as recited in the proposed amended claims improves material yield, restrains layer exfoliation and reduces costs.

For at least the foregoing reasons, the claimed invention distinguishes over the cited art and defines patentable subject matter. Favorable reconsideration is earnestly solicited.

Should the Examiner deem that any further action by applicants would be desirable to place the application in condition for allowance, the Examiner is encouraged to telephone applicants' undersigned agent.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,  
**WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP**

  
Ryan B. Chirnomas  
Agent for Applicants  
Registration No. 56,527  
Telephone: (202) 822-1100

RBC/meu